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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,474

03/07/2002

Yuichi Ishino

K-2039

1400

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7590

10/03/2003

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EXAMINER

ROBERTSON, JEFFREY

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,474

Applicant(s)

ISHINO, YUICHI

Examiner

Jeffrey B. Robertson

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Claims 1-20 in Paper No. 5 is acknowledged. The examiner has reviewed the restriction requirement and has decided to withdraw the requirement. The following action covers all pending claims 1-21.

Specification

2. The disclosure is objected to because of the following informalities: In the specification on page 8, paragraph [0024], the specification fails to identify whether the molecular weight of the polymer is weight average or number average molecular weight. On page 7, in paragraph [0021], in formula (1), "n" is not defined. On page 8, in paragraph [0022], "n" and "m" in formula (3) are not defined. On page 9, in paragraph [0027], in formula (5), "n" is not defined. On pages 10 and 11, paragraphs [0028] and [0030], in formulas (6) and (7), "x", "y", "z", and "n" are not defined. In addition, in the definition for R⁷ in paragraph [0028], the designation "any other alkyl group" is not understood.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For claim 5, the specification fails to identify whether the molecular weight set forth in the claims is weight average or number average molecular weight. Since weight average and number average molecular weight may differ by large margins, one of ordinary skill in the art would not be able to tell what molecular weight applicant is referring to in the claim.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 6, 7, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 6 and 7, in claim 6, n is undefined. In addition, in claim 7, the variables n and m are undefined.

For claim 18, the variables x, y, and z are undefined. In addition, in the definition for R⁷, the designation "any other alkyl group" is not understood. Does this mean that R⁷ cannot be the alkyl groups set forth for R⁵ and R⁶?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-14, 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Yokota et al. (U.S. Patent No. 6,398,669) and Roberts et al. (U.S. Patent No. 6,313,335).

It is noted that the Roberts reference is provided strictly to show features of Silaplane FM-DA11 not disclosed in the Yokota reference. This is a multiple reference 102 rejection in accordance with M.P.E.P. §2131.01 (C).

For claims 1, 3, and 10, in column 2, lines 16-25, Yokota teaches a golf ball that is coated with urethane based resin paint, where the paint also contains a polysiloxane that has at least one hydroxyl group at one end of the polysiloxane chain.

For claims 2, 6, and 7, in column 6, Table 1, Yokota teaches that Silaplane FM-DA11 is used. In column 7, line 35, Yokota teaches general characteristics of the Silaplane FM-DA series, which is a polydimethylsiloxane that falls within the definition of Formula (1), where R^B is of applicant's formula (2) in which R^1 is propylene, R^3 is ethyl, and R^2 and R^4 are methylene. For R^A , in column 2, line 44, Yokota teaches that R equal an alkyl group, which includes methyl and butyl. Roberts, in column 36, lines 46-61, discloses the structure of Silaplane FM-DA11, where R^A is butyl.

For claim 4, in column 4, lines 1-6, Yokota teaches that the modified polysiloxane is blended with the polyol and isocyanate components. In column 2, lines 20-22, Yokota teaches that the polysiloxane is present in an amount of 0.1 to 10% of the composition, which includes the range set forth by applicant.

For claim 5, in column 2, lines 24-25, Yokota teaches that the molecular weight is from 700-7000, which is within the range claimed by applicant. Yokota does not expressly teach the viscosity and the hydroxyl value of the polysiloxane. However, this appears to be an inherent property of the modified polysiloxane, especially as evidenced by the structure set forth in Roberts, column 36, lines 46-61. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

For claims 11 and 21, in column 2, line 66 through column 3, line 1, Yokota teaches that the polysiloxane is grafted to the main chain of the paint. In the case of claim 11, the base polymer and the graft polymer are the same. For claims 12 and 13, in column 4, lines 7-17, Yokota discloses that the main chain is an acyclic polyol that has several hydroxyl groups, where the polysiloxane would be the branching chain. For claim 14, in column 2, lines 37-44, Yokota shows that the backbone of the polysiloxane is a polydimethylsiloxane.

For claims 8, 9, 19, and 20, in column 4, lines 35-44, Yokota teaches that a solvent is used to prepare the paint, where the solvent is methyl ethyl ketone.

9. Claims 11, 15, 16, and 19-21 are rejected under 102(b) as being anticipated by Sugimoto et al. (U.S. Patent No. 5,725,443).

For claims 11, 15, and 19-21, in column 3, lines 30-39, Sugimoto teaches that a golf ball is painted with a urethane paint that also contains a polysiloxane component, where methyl ethyl ketone may be used as a solvent. In column 2, lines 13-18, Sugimoto teaches that the polysiloxane is a graft polymer. For claim 16, in column 2, lines 43-46, Sugimoto teaches that the polysiloxane component is mixed in at the time of mixing the isocyanate and polyol component. In column 3, Table 1, Sugimoto teaches amounts that are with the range claimed by applicant, especially with regard to compounds A-C.

10. Claims 11, 12, 14, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakinishi et al. (U.S. Patent No. 6,313,249).

At the outset, the examiner notes that the preamble of the claims has been given no weight, as it recites an intended use of the composition. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161,

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1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim).

This rejection covers situations where the base polymer and the graft polymer are the same. For claim 11, in column 2, lines 29-50, Nakinishi teaches a graft copolymer that has a carbon-carbon backbone and organopolysiloxane grafts. In column 1, lines 53-59, Nakinishi teaches that the organopolysiloxane-graft polymers are used as coating compositions. For claims 12, 14, 17, and 18, in column 10, lines 7-23, Nakinishi teaches a methacrylate terminated polydimethylsiloxane and methyl methacrylate are copolymerized through radical copolymerization, which would result in a comb polymer having an acrylic resin backbone polymer. For claim 17, R^c is methyl, R^d is methacryloxypropyl, and $n=25$. For claim 18, $y=0$, and R^6 =methyl. The variables x and z are positive integers.

11. Claims 11, 12, 14, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (U.S. Patent No. 6,573,320).

At the outset, the examiner notes that the preamble of the claims has been given no weight, as it recites an intended use of the composition. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the

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preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim).

This rejection covers situations where the base polymer and the graft polymer are the same. For claim 11, in column 2, lines 32-35, Ito teaches an acrylic resin composition that forms a clear layer of a painted film. For claims 11, 14, and 17, in column 4, lines 5-22, Ito teaches a polydimethylsiloxane that is terminated at one end with a methacrylate group. For claims 12, 14, 17, and 18, in column 13, lines 1-30, Ito teaches a methacrylate terminated polydimethylsiloxane and methyl methacrylate are copolymerized through radical copolymerization, which would result in a comb polymer having an acrylic resin backbone polymer. For claim 17, R^c is butyl and R^d is methacryloxypropyl. For claim 18, y=0, and R⁶=methyl. The variables n, x, and z are positive integers.


Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Blair et al. (U.S. Patent No. 5,461,109), Lutz (U.S. Patent No. 5,669,831), Hatch et al. (U.S. Patent No. 5,817,735), Hatch et al. (U.S. Patent No. 5,820,491), and Kennedy, III et al. (US 2003/0050425 A1) are cited for general interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR